

REMARKS

Claims 1, 8, and 21 have been amended. No claims have been canceled, and no new claims have been added. Reexamination and reconsideration of the above identified application are respectfully requested.

I. 35 U.S.C. § 112

Claims 1-2, 4-9 and 11-14 were rejected under 35 U.S.C. § 112 as not enabling a switching device for switching between a first RF signal received from a first RF receiver and a second RF receiver. Claims 1 and 8, on which Claims 2, 4-9 and 11-14 are dependent, have been modified to more clearly and accurately reflect Applicant's invention as set forth in the specification. As such, Claims 1-2, 4-9 and 11-14 are sufficiently enabled by Applicant's specification. Applicant, therefore, requests that the rejection of Claims 1-2, 4-9 and 11-14 under 35 U.S.C. § 112 be withdrawn.

II. 35 U.S.C. § 103

Claims 1-2, 4-9, 11-21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,437,051 issued to Oto, hereafter "Oto," in view of U. S. Patent No. 5,694,414 issued to Smith, hereinafter "Smith." Applicant respectfully traverses this rejection.

The Examiner bears the burden of supporting a *prima facie* conclusion of obviousness. To establish *prima facie* obviousness the Examiner must show: (1) suggestion or motivation, either in the references or to one skilled in the art, to modify the reference or combine the teachings; (2) a reasonable expectation of success; and (3) **the combination of the prior art**

must teach or suggest all of the claim limitations. MPEP § 2142 *et seq.*; In re Vaech 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). The Examiner has failed to meet the burden of showing both how the combination of Oto and Smith are suggested in any of the prior art, and how such a combination teaches all of the limitations recited in Applicant's claims. The Examiner has failed to successfully show that Applicants' claims are *prima facie* obvious. Applicant submits that claims 1-2, 4-9, 11-21 are not rendered obvious by the combination of Oto and Smith. Applicant, therefore, requests that the obviousness rejections to all claims be withdrawn.

With regard to claim 1, the Examiner asserts that because Oto teaches a third band that overlaps first and second bands, the third band is "between" the first and second bands. This assertion is wrong. The Examiner states that "[l]ocal oscillator covers frequencies overlapping the first and second bands, and thus, is located between both bands. However, Merriam-Webster's Collegiate Dictionary, Tenth Edition, defines between as "in the time, space, or interval that separates." Oto teaches two bands which are immediately adjacent to one another; that is, Oto teaches neighboring bands. Oto teaches a first band from 500-1500- Mhz, a second band from 1500-2100 Mhz, and a third band spanning from 900-2100 Mhz. Oto teaches a third band which includes significant portions of and overlaps the first and second bands. As such, Oto does not teach a third band that is between the first and second bands as there is no spectrum separating the first and second bands of Oto. This is clearly illustrated in Fig. 4 of Oto in which *a*, *b*, and *f* represent the first band, second band, and third band, respectively, as designated by the Examiner. Because Oto teaches a third band that is not in an interval separate from the first and second bands, Oto does not teach a third band between a first and a second band. Smith fails to cure this deficiency.

Continuing with regard to Claim 1, the Examiner admits that “Oto fails to disclose the first two way switching device, where the switching devices are responsive to a base band controller. The Examiner then asserts that Smith teaches two switching devices controlled by a base band controller and controlling a local oscillator with a base band controller. However, in making these assertions the Examiner fails to show that Smith teaches what is claimed by Applicant. Namely, Applicant claims a base band controller to which each of two switching devices and a local oscillator are responsive. That is, the three elements, the first and second switching devices and the local oscillator are each responsive to the same base band controller. As asserted by the Examiner and as taught in Smith, one band select signal 719 controls switching devices 709 and 710 in a receiver while mode controller 103 controls frequency synthesizer 105 in a transmitter. That is, Smith teaches a band select signal in a receiver and a mode controller in a transmitter that are by definition two separate and distinct elements which cannot teach Applicant’s one base band controller in a receiver. Oto fails to cure this deficiency.

In addition, in Smith, controller 103 selects between narrowband or spread-spectrum operation. Applicant’s base band controller selects between one of a first or second bands and controls first and second switches and a local oscillator, whereas controller 103 in Smith is coupled to a tunable band pass filter 117, a preamp 203, a tunable frequency synthesizer 105 a mode select switch 104, chip code generator 107 and a receiver information device 219. (See Smith, Fig. 3). As such controller 103 in Smith neither teaches nor suggests Applicant’s base band controller. Oto fails to cure this deficiency.

For all of the reasons set forth in the previous paragraphs, neither Oto nor Smith nor their combination teach or suggest all of the limitations recited in Applicant’s Claim 1. Claim 1 is,

therefore, not rendered obvious by the combination of Smith and Oto. Accordingly, Claim 1 and all claims depending thereon are patentable over the cited art.

With respect to Claims 2 and 4-6, Claims 2 and 4-6 are patentable over Oto in view of Smith by virtue of their dependency on Claim 1 which has been shown to be patentable.

With respect to Claim 7, Claim 7 is patentable by virtue of its dependency on claim 1 which has been shown to be patentable. More specifically, as discussed in more detail with respect to Claim 1, because Oto teaches a third band that overlaps first and second bands which are immediately adjacent to one another, Oto does not teach a third band between a first and a second band. Smith does not cure this deficiency. Accordingly, Claims 7 and claims dependent thereon are patentable over the cited art.

With respect to Claim 8, Claim 8 is patentable as reciting limitations similar to some of the limitations recited in Claim 1. That is, as discussed in more detail above with regard to Claim 1, because Oto teaches a third band that overlaps first and second bands which are immediately adjacent to one another, Oto does not teach a third band between a first and a second band. Smith does not cure this deficiency. The Examiner admits that Oto does not teach or suggest a transmitter. However, the Examiner asserts that Smith teaches a transmitter. However, in doing so, the Examiner refers to separate portions of Smith which are not related to one another. Smith teaches a transmitter which includes mode controller 103 controls frequency synthesizer 105. However, as taught in Smith, a band select signal 719 controls switching devices 709 and 710 in a receiver. Applicant claims a base band controller to which each of two switching devices and a local oscillator are responsive. But Smith teaches a band select signal in a receiver and a mode controller in a transmitter which are by definition two separate and distinct elements which cannot teach Applicant's one base band controller in a receiver. Oto fails to cure

this deficiency. Accordingly, Claim 8 and all claims depending on Claim 8 are patentable over the cited art.

With respect to Claims 9 and 11-13, Claims 9 and 11-13 are patentable by virtue of their dependency on Claim 8 which has been shown to be patentable.

With respect to Claim 14, Claim 14 is patentable as reciting limitations similar to some of the limitations recited in Claim 1. That is, as discussed in more detail above with regard to Claim 1, because Oto teaches a third band that overlaps first and second bands which are immediately adjacent to one another, Oto does not teach a third band between a first and a second band. In addition, as there can be no third band between the first and second bands as taught in Oto (because what the Examiner refers to as the first and second bands are immediately adjacent to one another), it is impossible to have a third band half way between the first and second bands in Oto. Smith does not cure this deficiency. Accordingly, Claim 14 and all claims depending on Claim 14 are patentable over the cited art.

With respect to Claim 15, as discussed in more detail above with regard to Claim 1, because Oto teaches a third band that overlaps first and second bands which are immediately adjacent to one another, Oto does not teach a third band between a first and a second band. Because there can be no third band between the first and second bands as taught in Oto, it is impossible to have a third band between the first and second bands in Oto. Smith does not cure this deficiency. In addition, the Examiner asserts that Oto teaches determining whether the RF signal belongs to a first or second bands. However, the cited portion of Oto only teaches a splitter for breaking the incoming frequencies into a high portion and a low portion. (Oto, col. 4, lines 1-12; see also Col. 3, lines 64-68). Oto, therefore, neither teaches nor suggests the step of

determining whether an RF signal belongs to one of two bands. Smith does not cure this deficiency.

Continuing with respect to Claim 15, the Examiner admits that Oto fails to teach that the IF signal is generated in response to a base band controller. The Examiner then asserts that it is known in the art to control a local oscillator with a base band controller. The Examiner directs Applicant to Smith for this proposition. However, Smith teaches that mode controller 103 controls frequency synthesizer 105 in which the controller 103 is coupled to a tunable band pass filter 117, a preamp 203, a frequency synthesizer 105 a mode select switch 104, chip code generator 107 and a receiver information device 219 such that when the mode controller 103 is set to narrowband modulation, the adjustable bypass filter 117 is adjusted to a narrow bandwidth and when set to spread spectrum, the bypass filter 117 is adjusted to a wide bandwidth (See Smith, col. 7, lines 37-59 and Fig. 3). As such, the mode controller taught in Smith neither teaches nor suggests Applicant's base band controller. Oto fails to cure this deficiency. Accordingly, Claim 15 and all claims depending on Claim 15 are patentable over the cited art.

With respect to Claims 16-20, Claims 16-20 are patentable by virtue of their dependency on claim 15 which has been shown to be patentable.

With respect to Claim 21, Claim 21 is patentable as amended as set forth above and as reciting limitations similar to some of the limitations recited in Claim 1. That is, as discussed in more detail above with regard to Claim 1, because Oto teaches a third band that overlaps first and second bands which are immediately adjacent to one another, Oto does not teach a third band between a first and a second band. Smith does not cure this deficiency. In addition, Smith teaches a transmitter which includes mode controller 103 that controls frequency synthesizer 105. However, as taught in Smith, a band select signal 719 controls switching devices 709 and

710 in a receiver. Applicant claims a base band controller to which each of two switching devices and a local oscillator are responsive. But Smith teaches a band select signal in a receiver and a mode controller in a transmitter which are by definition two separate and distinct elements which cannot teach Applicant's one base band controller in a receiver. Oto fails to cure this deficiency.

Continuing with regard to Claim 21, the Examiner admits that Oto fails to explicitly disclose a circuit which determines whether the RF signal input is in the first or second bands, but the Examiner then states that Oto teaches a splitter which splits an RF signal into two bands that are sent to two mixers. However, Oto's teaching a splitter for breaking incoming frequencies into a high portion and a low portion (Oto, col. 3, line 64 – col. 4, line 12) neither teaches nor suggests determining whether an RF signal belongs to one of two bands. The Examiner then asserts that Smith teaches a mode controller which determines whether a received signal is in one of two bands. However, Smith does not cure this deficiency. The portions of Smith cited by the Examiner show that Smith teaches a mode controller which is set to a mode and the receiver then detects signals within the frequency range associated with the mode. The cited portions also teach monitoring two frequency bands. However, Smith neither teaches nor suggests a circuit configured to determine whether a received signal is in one of two bands as recited in Claim 21. Accordingly, Claim 21 is not rendered obvious by and is patentable over the cited art.

For the reasons set forth above, applicant respectfully submits that all pending claims, namely Claims 1, 2, 4-9, 11-21, are patentable and respectfully requests withdrawal of the rejections under 35 U.S.C. § 103 and immediate allowance of all pending claims.

CONCLUSION


In view of the foregoing, it is believed that all claims now pending are, patentable define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

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By:


Thomas M. Coester, Reg. No. 39,637

12400 Wilshire Blvd., 7th Floor
Los Angeles, California 90025
(310) 207-3800

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box AF, Assistant Commissioner for Patents, Washington, D.C. 20231, on December 17, 1999


Laura Harmon

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